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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/609,168	06/27/2003	Peter J. McAlindon	065250-010	7807

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BEUSSE BROWNLEE WOLTER MORA & MAIRE, P. A.
390 NORTH ORANGE AVENUE
SUITE 2500
ORLANDO, FL 32801

EXAMINER	
WU, XIAO MIN	

ART UNIT	PAPER NUMBER
2674	

DATE MAILED: 09/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/609,168	MCALINDON, PETER J.	
	Examiner	Art Unit	
	XIAO M. WU	2674	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 June 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-75* is/are pending in the application.

4a) Of the above claim(s) *1-8,21 and 62-75* is/are withdrawn from consideration.

5)☒ Claim(s) *22-54* is/are allowed.

6)☒ Claim(s) *9,10,14-20 and 55-61* is/are rejected.

7)☒ Claim(s) *11-13* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 6-14-04, 10-6-03, 9-29-03
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 9-10, 14-20, 55-61 are rejected under 35 U.S.C. 102(b) as being anticipated by McClendon (US Patent No. 5,473,325).

As to claim 9, McClendon discloses an apparatus (Fig. 1) for generating a data signal, the apparatus comprising: a housing (102, 104); means for coupling a first controller (102) to the housing so that the first controller may move from a home position to a plurality of positions (507, 136, Fig. 2b) radially extending from the home position (82, Fig. 2b); means for guiding (507, 136) the first controller among the home position and the plurality of positions radially extending from the home position; and means for sensing a position (914, 924, Fig. 8) of the first controller and generating the data signal in response to the first controller being moved from the home position (82) to one of the plurality of positions (47-54, Fig. 2b).

As to claim 10, McClendon discloses means for coupling a second controller (Fig. 2a or 102, Fig. 1) which has the same structures as to the first controller 104.

As to claim 14, McClendon discloses means for sensing (914, 924) a position of the first controller (224) and generating the data signal in response to the first controller being moved from the home position to one of the plurality of positions comprising: a position sensing means (912, 914) within the housing; a shaft (82) pivotally extending from the position sensing means;

and a director plate (224) coupled with the first controller, the director plate including an aperture (82) for receiving the shaft so that the shaft moves in response to movement of the first controller.

As to claim 15, McClendon discloses means for coupling a first controller to the housing so that the first controller may move from a home position to a plurality of positions radially extending from the home position comprising: a recess formed in an underside of the first controller; and a shaft pivotally extending from a sensing means contained within the housing wherein the shaft extends into the recess to couple the first controller to the housing (see Fig. 8).

As to claim 16, McClendon discloses means for guiding (136) the first controller among the home position and the plurality of positions radially extending from the home position comprising: a nub (134) affixed to a base piece (194) of the first controller; and an impression (604, 602) formed on an underside of the housing defining the plurality of positions radially extending from the home position wherein the nub engages the impression when the apparatus is assembled for guiding the first controller.

As to claim 17, McClendon discloses means for guiding the first controller among the home position and the plurality of positions radially extending from the home position comprising: a base plate (194) affixed to the first controller; a first ball plunger (73) affixed within the housing; and an impression (604, 608) formed within a bottom surface of the base plate defining the plurality of positions radially extending from the home position wherein the first ball plunger engages the impression when the apparatus is assemble for guiding the first controller (see Fig. 5).

As to claim 18, McClendon discloses means for guiding the first controller among the

home position and the plurality of positions radially extending from the home position further comprising: a second ball plunger (21) affixed within the housing; and a concave impression (see Fig. 7) formed within the bottom surface of the base plate wherein the second ball plunger engages the concave impression when the apparatus is assembled.

As to claim 19, McClendon discloses means for guiding the first controller among the home position and the plurality of positions radially extending from the home position comprising: an impression formed within a concave surface located beneath the first controller, the impression defining the plurality of positions radially extending from the home position; and a guide ball (21) pivotally extending from a position sensing means affixed within the housing, the guide ball having a guide knob formed thereon that engages the impressions when the apparatus is assembled for guiding the first controller.

As to claim 20, McClendon discloses means for guiding the first controller among the home position and the plurality of positions radially extending from the home position further comprising: means for biasing (828, Fig. 7) the impression and the guide ball together.

As to claim 55, McClendon discloses an apparatus for generating a data signal, the apparatus comprising: a housing (Fig. 1) ; a first controller (104) ; a first impression (826, Fig. 7) formed in a first one of a curvilinear surface (404) of the housing and a curvilinear surface of the first controller, the first impression defining a plurality of directions that the first controller may be moved; a first nub (20) formed on a second one of the curvilinear surface of the housing and the curvilinear surface of the first controller so that the first nub engages the first impression to guide the first controller among the plurality of directions; means for sensing (914, 924) movement of the first controller in the plurality of directions and generating a signal indicative of

a direction of movement of the first controller; and a processing module (914, 924) configured to generate the data signal in response to receipt of the signal indicative of a direction of movement.

As to claim 56, McClendon discloses the means for sensing (614, 924) movement of the first controller in the plurality of directions and generating a signal indicative of a direction of movement comprising a potentiometer having a pivotally extending joystick affixed to the first controller (see Fig. 8).

As to claim 57, McClendon discloses means for switching the apparatus between a keyboard mode and a mouse mode wherein the processing module is configured to generate the data signal indicative of an alphanumeric character, the means for switching activatable by depressing and releasing the first controller (see col. 10, lines 13-29).

As to claim 58, McClendon discloses means for switching the apparatus between a num lock mode, a shift mode and a cap lock mode wherein the processing module is configured to generate the data signal indicative of an alphanumeric character, the means for switching activatable by depressing and releasing the first controller (col. 10, lines 24-29).

As to claim 59, McClendon discloses a second controller (102) which has the same structure as the first controller (104).

As to claim 60), McClendon discloses means for switching the apparatus between a keyboard mode and a mouse mode wherein the processing module is configured to generate the data signal indicative of an alphanumeric character, the means for switching activatable by depressing and releasing a first one of the first controller and the second controller(see col. 10, lines 13-29).

As to claim 61, McClendon discloses means for switching the apparatus between a num lock mode, a shift mode and a cap lock mode wherein the processing module is configured to generate the data signal indicative of an alphanumeric character, the means for switching activatable by depressing and releasing a second one of the first controller and the second controller col. 10, lines 24-29).

Allowable Subject Matter

3. Claims 22-54 are allowed.

4. Claims 11-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter:

None of the prior art references, alone or in combination, teaches or fairly suggests the limitations of "a kinematic map plate moveable in response to movement of the at least one controller; at least one impression formed in the kinematic map plate defining a number of directions that the at least one controller may be moved; a spider mechanism that cooperatively engages the at least one impression of the at least one controller to guide the at least one controller; an upper director plate for guiding the at least one controller in at least one direction; an actuator armature moveable in response to movement of the at least one controller; means for sensing a position of the at least one controller operatively coupled with the actuator armature; means for biasing the at least one controller so that it may be depressed and released and for biasing the spider mechanism against the kinematic map plate" as recited in independent claim 22.

None of the prior art references, alone or in combination, teaches or fairly suggests the limitations of "a kinematic map plate coupled with the controller; at least one impression having a plurality of grooves formed within the kinematic map plate; a spider mechanism having at least one post that impinges upon the at least one impression for guiding the controller among a plurality of directions defined by the plurality of grooves; an upper director plate seated within an annular rim formed in the housing, the annular rim defining a circumference of an aperture formed within the housing for receiving the at least one control assembly; a guide plate; means for sensing a position of the controller" as recited in independent claim 36.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The US 5,543,818, 5,804,781, 6,037,942, 6,256,029, 6,359,243, 6,567,072, and 6,897,849 are cited to teach a directional input device for inputting data.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to XIAO M. WU whose telephone number is 571-272-7761. The examiner can normally be reached on 6:30 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, PATRICK EDOUARD, can be reached on 571-272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

x.w.
September 5, 2005

XIAO M. WU
Primary Examiner
Art Unit 2674